### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| • | IN RE APPLICATION OF: | Rvoichi OHARA, et al |
|---|-----------------------|----------------------|

New U.S. PCT Application Based on PCTJP06/305070 SERIAL NO:

GAU:

FILED: Herewith EXAMINER:

FOR:

THIN-FILM PIEZOELECTRIC RESONATOR AND FILTER CIRCUIT

## INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

#### REFERENCES

- The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

#### RELATED CASES

- Attached is a list of applicant's pending application(s), published application(s) or issued patent(s) which may be related to the present application. In accordance with the waiver of 37 CFR 1.98 dated September 21, 2004, copies of the cited pending applications are not provided. Cited published and/or issued patents, if any, are listed on the attached PTO form 1449.
- A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

#### CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

#### DEPOSIT ACCOUNT

Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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SHEET 1 OF 1

| Form PTO 1449<br>(Modified) |      |   |             | ATTY DOCKET NO.  |              | SERVINO DO 1 U DU<br>New U.S. PCT Application |            |                           |  |
|-----------------------------|------|---|-------------|--|--------------|---|------------|---------------------------|--|
| (incomes)                   |      | PATENT AND TRADEMARK OFFICE   |             | 291682US2RD PCT  |              | Based on PCTJP06/305070                       |            |                           |  |
|                             |      |   |             | APPLICANT  |              |   |            |                           |  |
| LIST OF                     | REFE | RENCES CITED BY A   | PPLICANT    | Ryoichi OHARA, et al.  |              |   |            |                           |  |
|                             |      |   |             | FILING DATE  |              | GROUP   |            |                           |  |
|                             |      |   |             | Herewith   |              |   |            |                           |  |
|                             |      |   |             | U.S. PATENT DOCUMENTS  |              |   |            |                           |  |
| EXAMINER<br>INITIAL         |      | DOCUMENT<br>NUMBER  | DATE        | NAME   |              |   |            | ILING DATE<br>APPROPRIATE |  |
|                             | AA   | 2005-142888   | 06/30/05    | EBUCHI et al.  |              |   |            |                           |  |
|                             | AB   | 6 384 697   | 05/07/02    | RUBY   |              |   |            |                           |  |
|                             | AC   |   |             | ,  |              |   |            |                           |  |
|                             | AD   |   |             |  |              |   |            |                           |  |
|                             | AE   |   |             |  |              |   |            |                           |  |
|                             | AF   |   |             |  |              |   |            |                           |  |
|                             | AG   |   |             |  |              |   |            |                           |  |
|                             | АН   |   |             |  |              |   |            |                           |  |
|                             | ΑI   |   |             |  |              |   |            |                           |  |
|                             | AJ   |   |             |  |              |   |            |                           |  |
|                             | AK   |   |             |  |              |   |            |                           |  |
|                             | AL   |   |             |  |              |   |            |                           |  |
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|                             | AN   |   |             |  | <u> </u>     | <u> </u>                                      |            |                           |  |
|                             |      |   | FO          | PREIGN PATENT DOCUMENTS  |              |   |            |                           |  |
|                             |      | DOCUMENT<br>NUMBER  |             |  |              | TRANSLATION<br>YES NO                         |            |                           |  |
|                             | AO   |   |             |  |              |   |            |                           |  |
|                             | AP   |   |             |  |              |   |            |                           |  |
|                             | AQ   |   |             |  |              |   |            |                           |  |
|                             | AR   |   |             |  |              |   |            |                           |  |
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|                             | AU   |   |             |  |              |   |            |                           |  |
|                             | ΑV   |   |             |  |              |   |            |                           |  |
|                             |      | OTHER F   | EFERENCES ( | (Including Author, Title, Date, Pertinen   | nt Pages, e  | tc.)  |            |                           |  |
| <del> </del>                |      |   |             |  |              |   | r. Vol. 43 | 3. No. 8, Pages           |  |
|                             | AW   | LAKIN, K. M. et al., " 1.0-GHz thin-film bulk acoustic wave resonators on GaAs", Appl. Phys. Letter, Vol. 43, No. 8, Pages 750 - 751, 1983. |             |  |              |   |            |                           |  |
|                             | AX   |   |             |  |              |   |            |                           |  |
|                             | AY   |   |             |  |              |   |            |                           |  |
|                             | AZ   |   |             |  | Addi         | tional Refe                                   | rences     | sheet(s) attached         |  |
| Examiner                    |      |   |             |  | Date Cor     | nsidered                                      |            |                           |  |
|                             |      |   |             | t citation is in conformance with MPEP 6 n with next communication to applicant. | 09; Draw lir | ne through                                    | citation   | if not in                 |  |

New U.S. PCT Application Based on PCT/JP06/305070 Ryoichi OHARA, et al. Docket No. 291682 US

## STATEMENT OF RELEVANCY

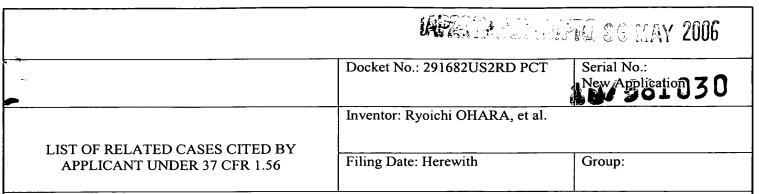
- 1) References have been cited in the International Search Report. A copy of these references is being submitted herewith.
- 2) References have been cited in the corresponding Search Report. A copy of these references is being submitted herewith.
- 3) References AB & AW are discussed in the specification. A copy of these references is being submitted herewith.
- 4) References are additional prior art known to Applicant. A copy of these references is being submitted herewith.

## AB: 6,384,697

Technologies of FBAR using a bottom electrode which has edges extending beyond each boundary of cavity are disclosed.

AW: LAKIN, K. M. et al., "1.0-GHz thin-film bulk acoustic wave resonators on GaAs", Appl. Phys. Letter, Vol. 43, No. 8, Pages 750 - 751, 1983.

Technologies of FBAR using a bottom electrode which has edges extending beyond each boundary of cavity are disclosed.



# LIST OF RELATED CASES

| Examiner<br><u>Initial</u> | Docket No.  | Serial or<br><u>Patent</u> | Filing or<br>Issue Date | Patent App.  Publication | Inventor or<br>Applicant |  |
|----------------------------|-------------|----------------------------|-------------------------|--------------------------|--------------------------|--|
|                            |             | Number                     |                         | No.                      |                          |  |
|                            | 256032US2   | 10/890,989                 | 07/15/04                | 2005-142888              | EBUCHI, et al.           |  |
|                            | 287666US2RD | 11/376,266                 | 03/16/06                |                          | YANASE, et al.           |  |

Examiner

Date Considered